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The Files - []

15 August 1955

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1. On Friday, 12 August 1955, a conference was held in the office of [] for the purpose of discussing the developmental specifications for [] These present at the conference were as follows:

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2. In connection with bandwidth reduction it was determined that reduction to a 9 kc bandwidth could be accomplished by simply replacing the crystal filters in the [] and doing a small amount of testing with this bandwidth during the field evaluation of [] and then designing the [] to be compatible with the 9 kc bandwidth. Going below this 9 kc bandwidth seems impractical, however. It was determined that the time required for the redesign phase of this program will be eighteen months for the delivery of one prototype unit. At the cost of approximately 30% additional the contractor felt the time could be reduced to fifteen months. Beyond this point reduction would not be feasible due to the fact that cost would increase tremendously with a very small decrease in time. The weight of this unit will be approximately 28 pounds, and the contractor understands that minimum weight and size must be a prime goal in this development. The approximate cost of the development of the first prototype unit will be []

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It was requested that the proposal be submitted showing costs in a more or less unitized manner so that the individual price of each unit may be estimated.

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3. The contractor estimated that the cost per unit in a production run of [] per unit. The cost of a base receiver, that is, the receiver portion of [] alone, was estimated at [] The transmitter portion of [] was estimated at [] minus the transmitter.

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functional characteristics to require a receiver with variable HF tuning but with a separate crystal plug-in for each crystal frequency. That is, the oscillator would be crystal controlled and the HF would be tunable. The contractor felt a great deal more difficulty would be encountered in designing a completely variable receiver to meet the specifications called for within the compact size required for this application. In connection with the tuning of the transmitter the contractor had visualized a separate noise generator tuning system, the use of which would require no radiation of HF signal from the antenna. This would, of course, increase the weight and number of packages required to be carried in connection with the [redacted]. However, it would create a tuning system with absolute security. In contrast to this is the flea-power radiation tuning system which may require less weight, no additional unit, but which would somewhat reduce the security of tuning the transmitter.

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5. The contractor indicated that the 4 inch maximum thickness stipulated in the development specification could be reduced by a small amount and perhaps the other dimensions retained. During a discussion of this the question arose as to whether it would be desirable to reduce the length and width dimensions and maintain the four inch thickness or hold the length and width dimensions and reduce the thickness to perhaps 3½ inches. It would appear that [redacted] 4 inch thickness is not excessive; however, the length and width of the [redacted] would make it rather inconvenient [redacted]. Therefore, it is desirable to determine the operational desires on which of the dimensions should be considered critical, and which should be reduced to the ultimate.

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6. The desirability of tuning the transmitter in the field could be accomplished to a degree by making potted tuning components accessible to the operator. This would require that the coils, capacitors, and crystal for each frequency be potted as a single unit and that the plug-in for this potted unit be accessible to the operator. With this device it would be possible to furnish the operator with any number of tuning units, therefore making any required number of frequencies available. [redacted]

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7. The contractor stated that accomplishing a .01% accuracy in resetting was feasible only through the use of a logging dial in equipment of this extremely miniature nature. The additional logging dial, in order to accomplish this extreme reusability may be desirable if equipment size does not suffer appreciatively. In connection with image rejection and overall sensitivity the contractor anticipates no great difficulty in accomplishing this specification.

8. The question arose as to the requirement concerning the unitized packaging of [redacted]. The contractor feels that it may be desirable to have [redacted] set up for operation in other than a rectangular form factor. It was indicated by the Government engineer that it would be highly desirable to have the operating form factor of the units after connection be a rectangle. However, if appreciable size and weight or complexity reduction could be accomplished in not having a rectangle in the set-up, then consideration would be given to operating in another form factor; however, that the storage form factor would retain a rectangular capability. It was also indicated to the contractor that it was a requirement to have directly connecting units and not to be dependent upon of any form of cable for connecting the various units of [redacted].

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